

Title (en)  
INDICATOR, DETECTOR, AND DETECTION METHOD

Title (de)  
INDIKATOR, DETEKTOR UND ERKENNUNGSVERFAHREN

Title (fr)  
INDICATEUR, DÉTECTEUR ET PROCÉDÉ DE DÉTECTION

Publication  
**EP 2164086 A4 20111221 (EN)**

Application  
**EP 08777517 A 20080623**

Priority  
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Abstract (en)  
[origin: EP2164086A1] [Object] To implement a detection technique in which a tumble of and a shock to on articles can be detected even with a simple and low-cost structure. [Solving Means] An indicator according to the present invention for detecting a tumble of and a shock to an article moves away from a holding guide in a detector when the detector inclines and goes beyond a limit for inclination. The indicator includes a first part in the shape of rolling on the holding guide when the detector inclines, and a second part smaller than the first part and in the shape of not preventing the first part from rolling. The first part and the second part join together and separate when receiving a shock.

IPC 8 full level  
**H01H 35/02** (2006.01); **B65D 79/02** (2006.01); **G01C 9/10** (2006.01); **G01P 15/03** (2006.01); **G01P 15/04** (2006.01); **G01P 15/06** (2006.01); **G01P 15/08** (2006.01); **H01H 35/14** (2006.01)

CPC (source: EP KR US)  
**B65D 79/02** (2013.01 - EP US); **G01B 7/00** (2013.01 - KR); **G01C 9/10** (2013.01 - EP US); **G01P 15/036** (2013.01 - EP US); **G01P 15/04** (2013.01 - EP US); **G01P 15/06** (2013.01 - EP US); **G01P 15/0891** (2013.01 - EP US); **H01H 35/02** (2013.01 - EP US); **H01H 35/14** (2013.01 - EP US)

Citation (search report)  
• [A] US 2005248467 A1 20051110 - IGAMI HIDEO [JP], et al  
• [A] US 3923000 A 19751202 - CLOYD HAROLD S  
• [A] JP 2007064711 A 20070315 - MEGACHIPS SYSTEM SOLUTIONS INC  
• [A] JP 2006117268 A 20060511 - FUNAI ELECTRIC CO  
• See references of WO 2009004942A1

Cited by  
EP2161584A3; US8240270B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

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